



AMERICAN WATER RESOURCES ASSOCIATION

COMMUNITY, CONVERSATION, CONNECTIONS

AWRA Spring Specialty Conference **GIS and Water Resources X:** **Spatial Analysis of Watersheds: Ecological, Hydrological, and** **Societal Responses** **April 22 – 25, 2018** **Rosen Centre Hotel, Orlando Florida**

GIS has come a long way! It has been 25 years since the first AWRA GIS & Water Resources Conference and the very term “GIS” doesn’t mean the same thing as it did back then. Data, tools, models and good cartography are still incredibly important. Many of us still perform much of our geospatial work on desktops. But ---- we’ve moved well beyond desktops to the cloud, to decision making and water-based applications that are integral to ecology and society --- far beyond floodplain mapping!

As GIS has changed, our biennial GIS and Water Resources conference is changing too! **If you haven’t attended this conference before:** This is the 10th in a series of conferences designed around geospatial solutions to water resources related problems. Innovative water resources scientists, engineers, modelers, software designers from the public/government agencies, academic and private sectors convene to exchange ideas, compare challenges and solutions. If your aquatic research, management, and conservation involves process models, geo-referenced field data, remote sensing, or geo-statistical models then this is the venue to show that work. We’ve taken a slightly different tack for 2018 by having two Technical Program Co-Chairs. Dr. Dan Ames of Brigham Young University (BYU) is well-known to regulars of this conference and brings his expertise and interests in GIS-based water resources modelling, open source GIS, and web apps. Dr. Mike McManus of EPA, Office of Research and Development is a fairly new member of our tribe. He organized two very successful topical sessions with an ecological focus for the 2016 AWRA GIS & Water Resources conference that was held in Sacramento, solidifying a place in our community for geospatial water-based analyses involving ecology. Our Topical Sessions Chair, Dr. Norm Jones, of BYU, has a long history of GIS-based hydrologic modelling and helped co-author the Arc Hydro Groundwater tools. He is actively fielding topical session ideas ranging from remote sensing application to water resources, Ele-Hydro, drones, watershed conservation, and the National Water Model. Rest assured, the National Hydrography Dataset and NHDPlus, climate change, flood modeling and all the regular topics will be well represented!

Keep your eye on the AWRA conference webpage for more exciting announcements!
A list of suggested topics and subtopics is on the reverse side.

Conference General Chair: Sandra Fox, St Johns River Water Management District,
sfox@sjrwmd.com

Call for Abstracts

The ONLINE Call for Abstracts will be available on the AWRA homepage in late August of 2017!

Below is a list of Topics and Sub-topics. It is provided as possible conference topics to encourage potential participants to submit an abstract; it is by no means all-inclusive. If you don't find your water-related topic listed – it just means that we didn't think of it ----- so, please still plan to join us to share your cutting-edge work.

The abstract presentation can be in oral or poster format. Both GIS and computer technology as well as water resources domain focused abstracts are encouraged. The final conference program will be determined by the content of submitted and accepted abstracts and Topical Sessions. The **deadline** for submitting an abstract is **January 9, 2018**. **Website:** www.awra.org

Data Acquisition and Management

Innovative Data Acquisition
 Mobile Data Collection
 Efficient Data Processing
 Secure Data Sharing
 Handling Data Uncertainty
 Authoritative Data Portals
 Web Services
 Data Curation
 Processing Big Data
 Ontologies and Semantics
 Advances in Remote Sensing
 New Data Models and Structures

Process Modeling

Managing Workflows
 Geoprocessing
 Modeling with Uncertainties
 Integrated Hydrologic/Hydraulic Modeling
 Integrated Groundwater/Surface Water Modeling
 Citizen Science
 Community Communication
 Sea Level Rise Adaptation and Climate Change
 Spatial Algorithms
 Decision Modeling
 Geospatial Visualization
 Cloud Computing
 High Performance Computing
 Parallel Computing
 Open Source Tools and Libraries
 Scientific Computing

Implementation

Water Supply Optimization
 Land Cover/Land Use Change
 Weather Forecasting
 Snowmelt Estimation
 Effective Decision System
 Drought Risk, Planning and Management
 Ecosystem Modeling and Monitoring
 Integrated Watershed Management
 Water and Energy Decisions
 Stormwater Management Innovations
 International Approaches and Collaboration
 Balancing Costs and Environmental Policies
 River Hydraulics
 Urban Watershed Management
 Managing Water Resources Under Extreme Weather Cycles
 Regional and National Systems

Emergency Management: Operations and Planning
 Coastal Processes
 Sediment Management
 Water Distribution and Drought Resilience
 Ocean Modeling
 Hydrologic Modeling
 Watershed Conservation and Restoration

Important dates:

Proposals for Topical Sessions to njones@byu.edu due:
 No later than **December 1, 2017**
 Notification of Topical Sessions acceptance: **December 15, 2017**
 Abstracts due (online submittal system): **January 9, 2018**
 Notification of Abstract acceptance: **Late January, 2018**

Groundwater Management
 Flood Risk Mitigation Planning
 Water Quality Improvements
 Hazard modeling (e.g. Landslides, Floods, Fires, Erosion)